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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,838	10/23/2003	Chien-Sheng Yang	JCLA7640	9223
23900	7590	02/04/2005	EXAMINER MENZ, DOUGLAS M	
J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618			ART UNIT 2829	

DATE MAILED: 02/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No. 10/692,838	Applicant(s) YANG, CHIEN-SHENG	
Examiner Douglas M. Menz	Art Unit 2824	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 7-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu et al. (US 6777709).

Regarding claim 7, Wu discloses a capacitor structure corresponding to a pixel, comprising:

A bottom electrode (114), deposited on a substrate (126, Figs. 2A-3B);

A dielectric layer (124), deposited on the bottom electrode (114, Figs. 2A-3B);

A top electrode (116), corresponding to the bottom electrode (114) and deposited on the dielectric layer (124), wherein the top electrode comprises a coupling part and a protruding part, the coupling part corresponds to the bottom electrode for forming a capacitor region, and the protruding part exceeds the capacitor region (Figs. 2A-3B and Col. 1 - Col. 2);

A passivation layer (122), covering the top electrode (116), wherein an opening (120) formed in the passivation layer exposes the protruding part of the top electrode (Figs. 2A-B and Col. 1, line 55 - Col. 2, line 15);

A pixel electrode (118, Fig. 2B and 200, Fig. 3B), covering the passivation layer and electrically connecting with the top electrode through the opening, wherein the pixel electrode is patterned to form an incision opening above the protruding part to expose the passivation layer (Col. 2, line 40 – Col. 3, line 20 and Col. 4).

Regarding claim 8, Wu further discloses wherein the bottom electrode (114) is made of a metal material (Figs. 2A-3B and Col. 2, lines: 1-15 and Col. 4).

Regarding claim 9, Wu further discloses wherein the top electrode (116) is made of a metal material (Figs. 2A-3B and Col. 2, lines: 1-15 and Col. 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (US 6777709) in view of Choo et al. (US 6797961).

Regarding claim 10, Wu discloses the structure of claim 7 as mentioned above, however, Wu does not explicitly disclose wherein the pixel electrode is made of an indium tin oxide material. Choo discloses a capacitor in a pixel structure wherein the pixel electrode is made of an indium tin oxide material (Figs. 6A-I and Col. 6, line 50 – Col. 7, line 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate an indium tin oxide (ITO) material for the pixel electrode of Wu's structure as this material was well known in the art at the time of the invention. The Choo reference is just one of many such examples which explicitly discloses this feature.

Regarding claim 11, Wu discloses the structure of claim 7 as mentioned above, however, Wu does not explicitly disclose wherein the dielectric layer is made of a Si_3N_4 material. Choo discloses a capacitor in a pixel structure wherein the dielectric layer is made of a Si_3N_4 material (Figs. 6A-I and Col. 6, line 50 – Col. 7, line 28). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate a silicon nitride material for the dielectric of Wu's structure as this material was well known in the art at the time of the invention. The Choo reference is just one of many such examples which explicitly discloses this feature.

Response to Arguments

Applicant's arguments filed 1/21/05 have been fully considered but they are not persuasive.

Applicant argues that the incision of Wu's structure is not above the protruding part by pointing to the fact that Wu calls section 200a "a protruding section." This is incorrect, although Wu calls section 200a "a protruding section", 200a in conjunction with 200b form the pixel electrode layer 200 (Col. 4). The protruding part of Wu's structure that corresponds to applicant's claimed invention is contained within the top electrode 116 (Figs. 2A-3B). Since the incision is in the pixel electrode layer 200, which is above the top electrode 116, this limitation is clearly met by the Wu reference.

To summarize Wu's teachings with respect to applicant's claimed invention, both disclose a capacitor structure corresponding to a pixel wherein the pixel electrode is cut in the case where the top electrode short circuits with the bottom electrode.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2824

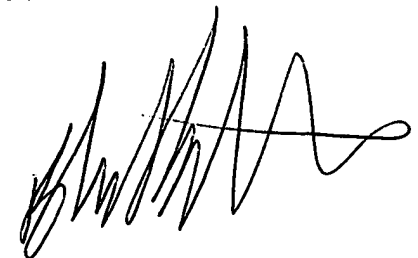
mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas M. Menz whose telephone number is 571-272-1877. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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BRADLEY BAUMEISTER
PRIMARY EXAMINER